FEDERAL CROP INSURANCE

A Description

PA-408

Federal Crop Insurance Corporation

UNITED STATES DEPARTMENT OF AGRICULTURE

CONTENTS

FEDERAL CROP INSURANCE - A DESCRIPTION

Introductory Description

Federal crop insurance is a type of insurance not generally available from private insurance companies that is offered by the Federal Crop Insurance Corporation, an agency of the United States Department of Agriculture. This insurance generally, but with some exceptions, covers unavoidable loss of production due to drought, excessive rain, floods, hail, wind, hurricane, tornado, frost, freeze, winterkill, snow, lightning, fire, earthquake, wildlife, insect infestation, plant disease, and any other unavoidable cause of loss due to adverse weather conditions. It does not cover such causes of loss as neglect, poor farming practices, and theft. It should be noted that it covers loss of production only -- not financial losses due to low prices.

The insurance is voluntary and the farmer pays a premium for this protection. The premiums are required to be set at a level believed adequate to cover losses and to provide a reserve against unforeseen losses. Operating costs have been borne by the Government through annual appropriations and these costs have not been included in the premiums farmers pay. The annual appropriation acts beginning with that for the 1955 fiscal year authorized the charging of some costs against premium income. Currently the direct costs of loss adjustment and a limited part of the administrative and operating costs are charged against premium income. These costs are not taken into consideration when premium rates are computed. It is not possible herein to describe the rates of premium farmers have to pay because these vary widely by areas depending on (1) the crop insured, (2) the risk of the area, and (3) the amount of insurance per acre.

Federal crop insurance is not available in all counties and in more than half of the insurance counties only one crop is insured. In 1958 one or more crops were insured in 830 counties out of about 3,000 agricultural counties in the country. In these counties nearly 300,000 producers were insured on one or more crops. The reason that this insurance is not available to all farmers on all crops is that it is still in an experimental or developing stage. Some of the insurance, such as insurance of peaches, is in a very early stage of experimentation while insurance of wheat, which was started first, is in an advanced stage of development.

Fourth revision - October 1959
Prepared by William H. Rowe
Federal Crop Insurance Corporation

Federal Crop Insurance on 1958 Crops

CROP	NUMBER OF COUNTIES	NUMBER OF INSURED FARMERS
Wheat	394	99,998
Tobacco	151	83,067
Multiple Crop Insurance 1/	100	55,024
Corn	207	40,012
Cotton	118	24,878
Flax	55	16,543
Soybeans	136	14,640
Barley	29	4,216
Beans	18	3,750
Citrus (Florida)	3	442
Oranges (California)	1	156
Peaches	1	97
Total	1,213 2/	342,823 3/

1/ Under multiple crop insurance a number of crops are insured under the same contract. See elsewhere for changes planned for 1959.

2/ This total includes duplication where more than one crop is insured in a county.

3/ This total includes duplication where more than one crop is insured by a farmer.

The method of insuring crops has changed several times and is to be changed on three crops for 1960 and on others in 1961. Three general methods that have been or will be used for field crops are explained, using wheat as an illustration and the same conditions and data for all three illustrations.

(1) Under Method No. 1, assume that a farmer planted 100 acres of wheat and that he is insured for 10 bushels an acre. Assume also that the price of wheat fixed for insurance purposes in advance of the season is \$2.00 per bushel. The amount of insurance on 100 acres would be 1,000 bushels; this would be a guaranteed production. Assume the farmer harvested all the acreage and produced only 400 bushels as a result of causes insured against. The production would be short 600 bushels from the amount guaranteed, and at \$2.00 per bushel he would be indemnified for \$1,200. 1/

1/ This same general method was used in the early years (1939-1947) except that the price used was the current market value. See later section on history.

(2) Under Method No. 2, assume again the farmer planted 100 acres of wheat, that he was insured for $20.00 per acre, and that again the fixed price for insurance was $2.00 per bushel. (At $2.00 per bushel, $20.00 is equivalent to a guaranteed production of 10 bushels per acre.) Also assume again that he produced only 400 bushels. Under this method, the amount of insurance for 100 acres would be $2,000. The value of the 400 bushels of production at the fixed price of $2.00 per bushel would be $800. His indemnity would be $2,000 less $800, or $1,200.

(3) Under Method No. 3 now being adopted for future years, the farmer would have a number of choices of the amount of insurance per acre, Assume that one of those choices was $20.00 per acre and that he selected that amount. Assume also that there was a guaranteed production of 10 bushels per acre established, that he planted 100 acres of wheat and that he only produced 400 bushels. His guaranteed production on 100 acres would be 1,000 bushels, and his production of 400 bushels would be 600 bushels less than the guaranteed production. The percentage of loss would be 600 bushels divided by 1,000 bushels or 60 percent. Since he had selected $20.00 of insurance per acre and had planted 100 acres, the amount of his insurance would be $2,000. Sixty percent of $2,000 would be $1,200; this would be the amount of indemnity due him. Had he selected $15.00 of insurance per acre, his indemnity would be 60 percent of $1,500, which is $900. This method will give the farmer more choice in the amount of protection. It will be in effect for the 1960 crop year on corn and soybeans and with some variation in certain tobacco insurance counties but not on other field crops until the 1961 crop year.

The above illustrations are brief and simplified as a first approach. They would be different under certain circumstances, such, for example, as planting destroyed acreage to a substitute crop or in the case of damage to quality. There are variations from these methods for tree crops and tobacco. These will be explained later.

LEGISLATIVE BASIS

The original Act was passed by Congress and was approved in February 1938 and is known as the Federal Crop Insurance Act. It provided for

insurance on wheat only. This Act was amended in 1941 to include cotton. Insurance was suspended for 1944 by appropriation legislation but reinstated for 1945 on the basis of an amendment to the Federal Crop Insurance Act, adding flax and providing authority for experimenting with insurance on other commodities. After loss of considerable capital in the early years, the Act was amended again in 1947 and the program was reduced in scope to an experimental basis. In 1949 the legislation was amended again, setting up for a four-year period a gradual basis for expansion. In 1953 provision was made for continued expansion.

The legislation establishes the Corporation as an agency of and within the United States Department of Agriculture and provides for a Board of Directors appointed by the Secretary of Agriculture, composed of the Manager of the Corporation, two other employees of the Department of Agriculture, and two persons experienced in the insurance business who are not otherwise employed by the Government. The Act also authorizes capital for the Corporation intended to serve as a revolving fund and sets up the basis for the insuring of crops. The operating organization was set up as a Corporation so that it might operate somewhat as a private insurance company.

ADMINISTRATIVE ORGANIZATION 1/

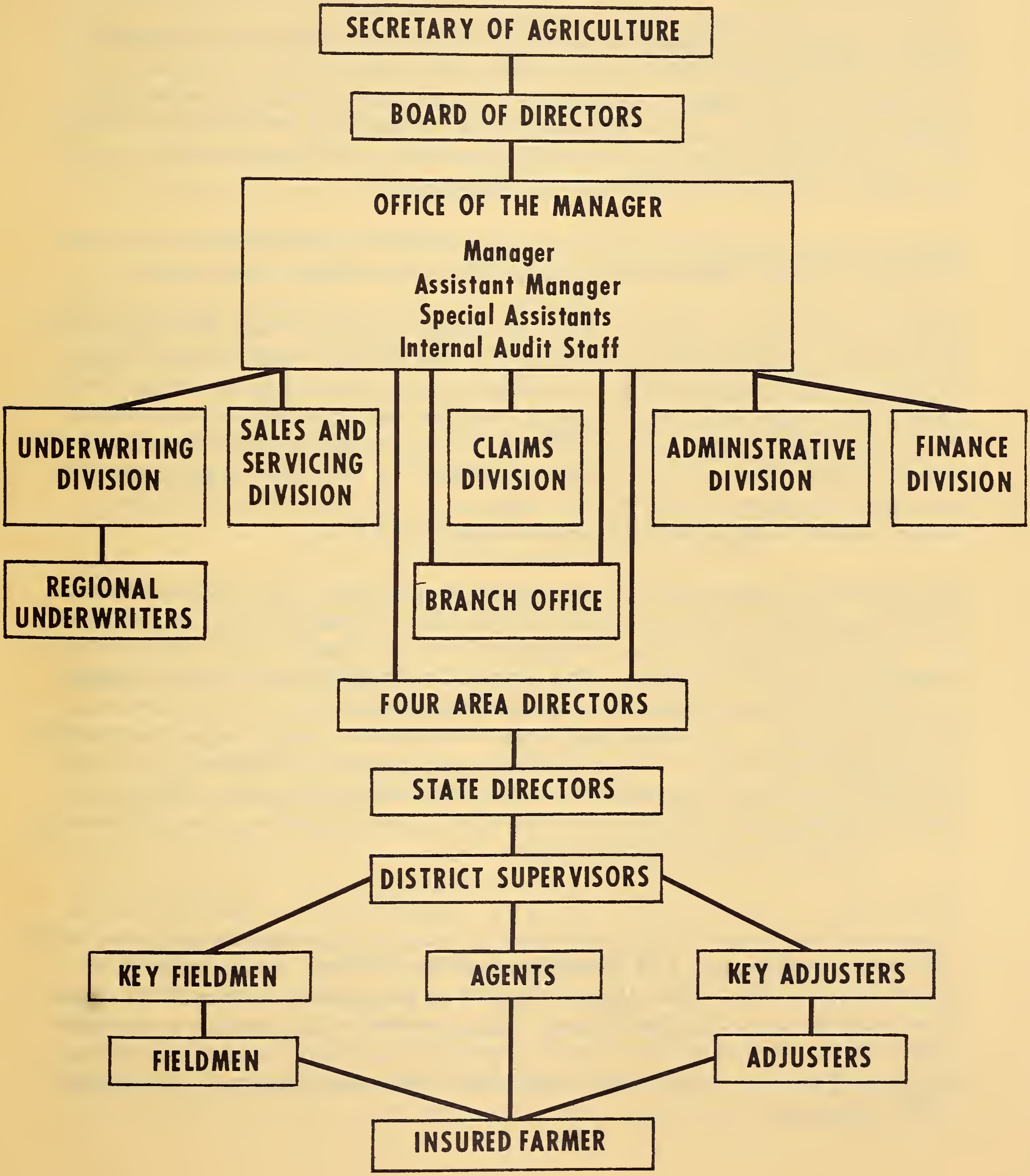
The Secretary of Agriculture is responsible for the administration of the program through the Board of Directors appointed by him, and a Manager. As of July 1959 the two employees of the Department of Agriculture who are on the Board in addition to the Manager are (1) an Assistant Secretary of Agriculture, and (2) the Director of Agricultural Credit Services of the Department of Agriculture. The Board of Directors determines over-all policies and approves the terms and conditions of the insurance contracts offered.

The Manager of the Corporation is the executive head of the Corporation. The headquarters office is in the Department of Agriculture in Washington and a branch office is in Chicago. There are state crop insurance offices for individual states or groups of states.

The headquarters office consists of the Office of the Manager and five Divisions - Underwriting, Sales and Servicing, Claims, Finance, and Administrative. Four Area Directors stationed in the field are responsible for directing and supervising operations, other than underwriting,

1/ See also accompanying Organization Chart.

FEDERAL CROP INSURANCE ORGANIZATION CHART



in their areas. The functions of the headquarters office are primarily the determination of policy, the planning and development of the insurance, the establishment of the coverage and premium levels at which it is sold, the direction and supervision of operations, finance and accounting.

Actual insurance contracts are not processed through the headquarters office. The branch office in Chicago is the central office for insurance contract records, their examination, the computing of premiums and billing of insureds, receiving premiums, computing and paying indemnities, maintaining program accounting records, and summarizing statistical data for general and actuarial purposes.

There are seven Regional Underwriting Offices in the field that are responsible for the field underwriting activities of the Corporation.

There are 22 state offices. While these are called "state offices," some serve two or more states, especially in the case of states where the insurance volume is not large. A state director is in charge of the insurance in his state or group of states and has one or more district supervisors as assistants. He has charge of the insurance operations in his area including the selection and supervision of insurance agents and the selection and supervision of loss adjusters. He operates under the direct supervision of one of the area directors.

Each district supervisor is essentially an assistant to the state director and has certain counties to supervise. The average number of counties per district is about 13 but the number varies greatly with volume of business and other factors. The district supervisor is in travel status practically all of the time, the method of travel being by automobile. He may have two part-time per diem assistants: one to supervise selling and servicing known as a key fieldman and one for supervising loss adjustment known as a key adjuster. The key fieldmen and key adjusters may not always be training and supervising others but may be performing the work in the more difficult cases.

Generally, in each county there is an insurance agent. His function is to sell the insurance and to service it, such as obtaining acreage reports, collecting premiums, and receiving notices of loss. He is paid on a commission basis. His office is known as the "county office." It is the local contact point for the farmer, a place where the farmer can obtain information, buy crop insurance, report his acreage, pay his premium, and report losses. The agent may have insurance salesmen and others working for him.

There are some modifications of this agency arrangement in a considerable number of counties which at the time of this writing are experimental and which usually result from difficulties in obtaining a satisfactory agent. One method is to contract with an individual or business office to provide suitable office space and do all servicing work which does not require field contacts. The field contacts are made by part-time per diem employees of the Corporation - fieldmen who may do field sales and servicing work in a number of counties and who are usually farmers. Another method being tried in some counties with a large volume of business is maintaining a Corporation office with a clerk assisted by per diem fieldmen.

The other direct contact with the farmer is the adjuster who is responsible not to the agent but to the state director. He is usually a part-time employee of the Corporation working only when needed. In some cases he may be a local person working principally in his home county or he may be from outside the county. He is usually a farmer or one who has farming experience. Upon notice of damage or loss given to the Corporation by the insured, he inspects the crop, may give consent to put badly damaged acreage to other use, and adjusts losses after harvest.

HOW IT WORKS FOR THE FARMER

As an example, let us assume that a farmer lives in a county where wheat crop insurance is available. A sales agent for crop insurance may call on him or the farmer may hear of the insurance and ask about it at his county office. If he decides to take the insurance he must make an application for it in writing on a special form. This application for insurance must be submitted before a "closing date" which is normally just before planting of the crop generally begins in the county. After the first year that he takes wheat crop insurance, he will not have to apply for it again because his insurance contract will continue in force from year to year unless either he or the Corporation decides to cancel it.

In deciding whether or not he wants to take the insurance he will want to know how much protection it will give him and how much it will cost. This information on a per acre basis is available from the salesman and the official record is available in the county office.

His application for insurance covers all of the insurable wheat in the county in which he has a share in the crop at the time of planting. He

cannot obtain insurance on one farm, for example, and not have it also on his other farms. His application will also contain a promissory note for the premium each year. At the time he makes his application, it is not usually possible to know the exact amount of the premium because he may not know the location nor the exact amount of acreage that he will plant. His request for insurance is reviewed and if he is satisfactory, the application is accepted and he then has an insurance contract. He receives an insurance policy setting forth the terms of the insurance contract.

After he has completed planting of his crop he reports the location and amount of acreage that he has planted as well as his share in the crop. This is most frequently done by a visit to the county office although some times it is done by mail and some times the information is given to a representative who visits the farm. These data provide the basis for determining the amount of premium that he is obligated to pay. He may pay this premium immediately or delay payment until after harvest. If he reports his acreage within 30 days after planting of wheat is generally completed in the county and pays his premium at the time of his report, he is given a discount of 5 percent on his premium. Any premiums unpaid by a fixed date (some time after usual harvesttime) will be increased by 10 percent.

The farmer is expected to plant his crop and take care of it in a good workmanlike manner as his contract does not cover losses resulting from negligence and poor farming practices. If his crop is damaged so that it is probable that there will be a loss and it is too late to replant it, he must give notice of that fact promptly to his county office. Upon receipt of this notice, his crop may be inspected and definitely will be inspected if he also indicates that the crop on all or part of the acreage is so badly damaged that he wants to abandon the crop and put the land to other use, possibly to plant some other crop as a substitute. He cannot without penalty destroy his insured crop and plant his substitute crop before the inspection has been made and consent given. If any of the acreage remains for harvest the loss cannot be settled until after harvest, and he is advised to report again about his loss after he has harvested the crop.

Most reports of loss are submitted after harvest. The insured farmer is required to keep an accurate record of his production or to keep his production on the farm so that the loss may be determined. An insurance adjuster will visit the farm, measure the wheat that may be

stored on the farm, obtain information with respect to the amount that has been sold or otherwise disposed of and verify it to his satisfaction. He will inspect the fields where the crop was grown and also determine the acreage. The insured farmer will normally submit a claim for indemnity based on these findings and if the claim is approved, he will receive a check for the amount of his indemnity.

Thus, if a farmer is insured he does not have any difficult process to follow under his contract. He has to farm, of course, in a workmanlike manner, to report his acreage, to pay his premium, to give notice of damage or loss promptly, and to retain evidence of his production.

PURPOSE OF CROP INSURANCE

Before proceeding further into the methods of insuring and operating, it might be desirable to stop and consider briefly the purpose of crop insurance. The farmer's crops are subject to many natural hazards over which he has no control. Often as a result of drought or excessive moisture, of cold or heat, or some other reason, the farmer's crop is lost or severely reduced. Many times the loss of these crops results in financial difficulties even to the extent of having to discontinue farming operations. This is particularly the case where crop failure comes in a series of years, a situation not uncommon and resulting from so-called "weather cycles" about which we know little.

Insurance is a device designed to meet the problem of risks. Crop insurance spreads the losses over many persons exposed to these risks. It spreads the losses over many areas. It spreads the losses over many years. It enables the farmer to substitute a regular annual premium cost for irregular losses.

The farmer has a major investment in his growing crops. With our modern commercial methods of farming, the cash costs alone are high. It takes money to buy fertilizer, seed, gasoline, insecticides, irrigation water, and labor. Many farmers have to borrow to put this investment into the crop. Loss of that investment often means inability to repay the loan. This often exhausts his credit, leaving him without means of financing for subsequent years. Crop insurance improves his credit because he can offer it as additional security and use it to pay off his loan if his crop fails. The farmer who does not have to borrow may be in stronger financial position but he risks the money taken from his reserves to produce the crop. If the crop fails, he must dig deeper into his reserves to produce the crop for the following year. By protecting his investment with crop insurance, he can protect his accumulated reserves.

Crop insurance may be looked at not only as protecting the investment but as stabilizing the income. Persons with highly fluctuating incomes who do not build up adequate reserves must adjust their standard of living to their income. This is particularly the case of low-income groups who also often have little ability to borrow. Crop insurance assures them some purchasing power every year.

It is sometimes thought that insurance of crops is needed where losses are frequent but of little need where losses are infrequent. It is not the frequency of the loss that measures the need for insurance but the amount and importance of the amount that is risked. It hurts just as much to lose the investment in producing a crop if you are one out of a hundred who suffers a loss as if you are one out of ten. In fact, where losses are infrequent the insurance protection is quite desirable because the very infrequency of loss makes the premium cost low. It does not make insurance protection unnecessary.

The benefits of crop insurance extend beyond the farmer. Rural communities are dependent upon farm income. If the farmer can pay his bank loan, his store bill, his doctor bill, etc., and has some money to spend, even though small, stability is added to the income of that rural community. Agricultural income is a factor in national income and any stabilizing factor such as crop insurance has some effect on the prosperity of the country as a whole.

Crop catastrophes often necessitate Government grants, loans, or other assistance to farmers affected thereby. Crop insurance reduces the need for such public relief measures. It enables the farmer to make provision in advance against such emergencies. It enables farmers as a group to build up through premiums a fund to meet these needs.

AMOUNT OF COVERAGE PER ACRE

In this section the terms "coverage" and "amount of insurance" are used as in the current contracts of insurance in effect for the 1959 crop year and not as they would be for a new insurance plan being adopted for future years and described earlier as Method No. 3. Under the current insurance in effect for the 1959 crop, the coverage or amount of insurance is also the guaranteed production. Under Plan No. 3 the amount of insurance and the guaranteed production will be separate items. The farmer will have an optional choice of a number of amounts of insurance per acre but no choice on the guaranteed production per acre. Under the current system, he has no choice of the amount of insurance per

acre, except for the provision of co-insurance described later and on certain tree crops. Much of the following description will apply under Method No. 3, particularly to the figure for guaranteed production.

The amount of insurance or coverage per acre differs so widely over the country and for different crops that only general information can be given here with respect to it and something about the method by which it is determined.

There is an important point that should be noted with regard to the amount of coverage per acre. The coverage is essentially a guarantee. Take for example a coverage of 15 bushels per acre. The fifteenth bushel has the least chance to be produced and therefore it is the most expensive bushel to insure. The fourteenth has a little more chance to be produced and is a little less expensive to insure. The thirteenth in turn has more chance to be produced than the fourteenth and is less expensive to insure. Following this reasoning, 10 bushels can be insured for a premium less than two-thirds the premium for insuring 15 bushels, probably for half or less. So while the higher coverages are attractive for the larger protection, the lower coverages are attractive for the lower premium cost.

Since the top part of the coverage is the most hazardous to insure, the Corporation must give much consideration to how high a coverage can be offered under sound insurance. The amount of coverage which can safely be insured for an individual tract of land or land area must, of course, to a certain extent be determined locally. At the same time, it must be subject to control by the Corporation and is in part influenced by legislative controls. The Federal Crop Insurance Act sets two general upper limits on the amount of insurance. One is that it shall not generally exceed the investment in the crop (per acre) in the general area and the other is that it shall not exceed 75 percent of the average yield for the farm over a representative period of years. Within these limits set by law, methods have been devised for establishing these coverages, giving consideration to the amount which can be insured on a sound basis, the premium costs, the desires of the farmers, etc.

The process begins at the top. County figures are first developed by the actuaries in the headquarters office based, in part, upon Department of Agriculture statistics with regard to the long-time average yield for the county and statistics from various sources regarding the

usual investment in the crop in the area. These coverage figures are in dollars but they are based upon an amount in bushels (or other physical units) and a "fixed price" per bushel. The amount in bushels represents the basic level of the coverage; the fixed price can change from year to year with changes in prices. It has been the policy in recent years to make changes in the bushel coverage only at intervals of several years. The amount of premium that farmers in an area are willing to pay is usually a factor in determining the amount of the insurance coverage. Frequently premium rates are computed for two or more possible county coverage levels and these figures are sent to the county for an opinion as to which option would be most acceptable to farmers there.

After the figure for the county is established, it is sent to the Regional Underwriter, who, with the assistance of local people, makes such variations in coverage as are warranted between different parts of the county. The basic consideration is the productivity of the land. Yield records, soil maps, and other sources of information are used in dividing the county into areas, some with higher coverages than others. An area does not have to be contiguous land; it may consist of land with the same productivity and coverage in different parts of the county. The average of the coverages established for the different areas, weighted by acreages in these areas, cannot exceed the county figure established by the headquarters actuaries.

There are some deviations from the area method for setting coverages. In many tobacco insurance counties instead of setting a coverage for an area within the county a list is made of owners. For each a coverage is established based principally on his past production history records. In practice this is usually done by setting up a number of coverages, maybe five, ranging from the lowest to the highest and each individual listed is given one of these coverages depending on his past production history. Tenants or sharecroppers having insurance have the same coverage as the owner of the land. A method is being tried in some cotton insurance counties whereby the coverages for farms in the county are determined individually rather than by areas.

Through this general system, effect is given in the establishment of coverages to local knowledge about the different land areas, to the statistical records of past production, to the amount of premium which it is believed farmers are willing to pay, to the general policies of administration, and to the restrictions in the legislation.

Two or more coverages may be established for an area with the farming practice followed determining the coverage to apply. Land that is irrigated will usually be insured for more than if the land is not irrigated. Non-irrigated land that is summer-fallowed will usually have a higher coverage than if the land is not fallowed.

The amount of coverage per acre is not as high on that acreage where the farmer does not complete his crop as it is on the acreage that is harvested. Actually, he does not have as much investment in the acreage which is destroyed and never harvested. The coverage is progressive, increasing by stages throughout the season. These stages vary for the different commodities. One set of stages used in quite a few commodities including wheat is that the amount of coverage on destroyed acreage planted with the consent of the Corporation to a substitute crop is only half as large as it would be if the acreage were harvested. For any other acreage destroyed and not harvested, the coverage would be 90 percent of the full coverage on harvested acreage. In some other crops, the stages of production depend on the farming operations that have been completed. For example, in non-irrigated cotton the amount of coverage before "laying by" (stopping cultivation) is 40 percent of the full harvested coverage. After the crop is laid by and until it is harvested, coverage is 80 percent. There are variations for other crops. The above illustrations, however, point to a principle that is involved and which is used throughout the different types of crop insurance.

PREMIUM RATES

The processes by which the premium rate for any area of land is determined are somewhat similar. The actuaries at the headquarters office determine what the average premium rate for the county must be. The original county premium rates were based on estimated losses per acre over a representative period of years from records of yields in past years. The methods are too varied and complicated to be given here except to point out that two kinds of yield data were used. One was yield records for individual farms which are seldom available and even then for not more than a short period of years and the other was estimates of annual average county yields now available for many crops for a considerable period of years in the Department of Agriculture. Losses per acre were computed in physical amounts per acre and premiums were stated similarly, such, for example, as one bushel per acre. Later the premium rate per acre was stated in dollars per acre -- the amount in bushels multiplied by the fixed price. As time progresses

actual insurance losses are incorporated into the rates so that eventually the premium rate will be largely made up from actual insurance loss experience. In more recent years the actuaries have made these premium computations on a percentage of coverage basis and within the last year or two premium rates have been quoted to farmers in this manner -- more accurately as the rate per $100 of the coverage on a harvested acreage basis.

After the actuaries of the headquarters office determine the county rate it is sent to the Regional Underwriter. He, with the assistance of local people, divides the county into rate areas. In dividing the county into rate areas and establishing the differentials between areas, consideration is given to the risks of production. Crop insurance experience of previous years plays an important part. In this process of classifying the land in the county some of it may be classed as uninsurable. (Also, some farmers may be classed as uninsurable.) To avoid having separate area classifications for premium rates and for coverages, the two classifications are consolidated by subdivision of areas so that all land in any designated area, such as Area 5, will have the same coverage and the same premium rate. This may necessitate having two or more areas with the same coverage but different premium rates, or vice versa.

Final approved coverages and premium rates for areas are set up on a table called the "county actuarial table" and together with the official map of the areas it becomes the official record of the insurance terms for land in the county. They are kept on file in the county office and are available for inspection by farmers. A sample actuarial table for one county for wheat insurance is shown herein. It should be considered as illustrative of the method of providing such information but the data therein are representative only of the county and not of all wheat insurance in the United States. The actuarial tables for some other commodities insured differ from the table for wheat.

The methods described above of establishing premium rates are also subject to the basic policies of the Corporation regarding premiums. The Federal Crop Insurance Act states that the premium charged shall be such amount as is considered by the Board of Directors to be adequate to meet losses and to establish a reasonable reserve against unforeseen losses. Consequently, premium rates have been computed on the basis of the amount necessary to cover only the insurance losses and provide reserves. It has been the policy of the Congress, under authorization in the Federal Crop Insurance Act, to provide appropriations for the payment of operating expenses.

Form FCI-35-W

UNITED STATES DEPARTMENT OF AGRICULTURE
FEDERAL CROP INSURANCE CORPORATION

State Kansas

County Saline

COUNTY ACTUARIAL TABLE

1959 WHEAT CROP INSURANCE

Fixed Price: $ 2.04 Per Bushel

AREA NUMBER	COVERAGE PER ACRE BY STAGES			PREMIUM RATE PER $100 COVERAGE IN THIRD STAGE
	FIRST STAGE	SECOND STAGE	THIRD STAGE	
(1)	(2)	(3)	(4)	(5)
	(Dollars)	(Dollars)	(Dollars)	(Dollars)
1	6.65	11.97	13.30	10.45
2	9.20	16.56	18.40	10.55

Approved: FCIC Underwriting Division M. Elton Colby, Date 10/28/57

7/5/57

The risks vary so widely by crops, by areas, and by the amount of the coverage per acre, that it is not possible to give any comprehensive picture of the cost of this insurance to the American farmer. For example, county average premiums for wheat insurance for 1959 vary from nearly as low as 2 percent to as high as 37 percent of the coverage on a harvested acreage basis. In one county there is a coverage of $31.10 per acre for a 2.45 percent premium whereas in another county there is $9.50 coverage per acre for a premium of 36.40 percent. These, of course, are extremes but they reflect the fact that there are vast differences in this country with respect to the productivity and risk in growing wheat. For insurance in effect in 1958 the average ratio of premiums to coverage for wheat insurance was a little under 10 percent although for all kinds of crops insured the average ratio was about 7-1/4 percent.

SOME INSURANCE FEATURES

In this section an attempt is made to describe some of the insurance contract provisions other than those described elsewhere in this report. This section must in itself be general and limited to the usual practice because it represents a description of insurance for many commodities and these vary somewhat even though they have much in common.

Who May Obtain Insurance

Insurance is available only to producers of the insured crops. A landlord and his tenant usually apply for insurance separately and either may insure his share in the crop. However, under a recent provision, tenant and landlord may jointly insure their combined share. This provision also applies to joint owners and joint operators. In the case of cotton insurance and tobacco insurance, a farm operator may provide the insurance for his share tenants and sharecroppers who farm under his supervision. This insurance must cover all such persons who share the crop with him. He pays the premium. However, any loss

of a sharecropper or share tenant is paid by joint check made out to the operator and the sharecropper or share tenant.

Closing Dates

Under each type of insurance closing dates are established after which new applications for insurance in that year will not be accepted. These closing dates precede the usual period of planting and in some cases are considerably in advance of the usual planting dates. The main object of having closing dates (as well as cancellation dates which are explained later) is to get the insurance sold or on the books before much can be known about the conditions for planting and the prospects for the crop. Sometimes the amount of soil moisture or other factors may give a clue to the chances for a good or poor crop. Without these date limitations many farmers would take insurance only in those years when conditions for planting and crop prospects indicated less than normal chances for a crop. This is referred to in insurance terms as "adverse selection of risks" and the Federal Crop Insurance Corporation attempts to avoid this by early closing and cancellation dates. An illustration of what could happen without these dates is shown by the following statement taken from a report from a state director about two months after the usual planting date for winter wheat: "It has been very dry recently and the wheat crop is at a standstill. Farmers are coming into the county offices now asking for crop insurance on their wheat. One county told me they had at least fifty farmers asking for insurance in the last ten days." If soil moisture or other conditions become serious before the regular closing date, the taking of applications may be discontinued earlier.

Preplanting conditions may be such that even before the closing date there may be some indication of unfavorable growing conditions. One of the most important of these is a lack of accumulated moisture in the soil. Under such conditions sales may be stopped before the closing date. Such conditions are not always known except locally and sales of insurance may increase rapidly in the area. The Corporation annually establishes a maximum number of contracts (carryover plus new) for each county. When that allotment is reached, sales are stopped for a recheck to determine whether such increase is due to adverse conditions for growing of the crop, and sales can be continued there only with the approval of the Washington office.

The Insurance Contract

Each farmer who buys Federal crop insurance has an insurance contract directly with the Federal Crop Insurance Corporation. Unlike insurance in some other countries, the individual farmer is not insured by a local association which in turn re-insures with a national organization; each farmer is insured directly by the national organization. The county and state offices of the Federal Crop Insurance Corporation are for administration only -- they are not insurance companies or associations.

Thus the farmer enters into a contract as an equal party with the Corporation, and he has definite rights under the contract. He can bring suit in the courts to enforce those rights if necessary. He can bring suit in event of controversy regarding the facts involved or the meaning of the terms of the contract and such suits while relatively few are not uncommon.

The contract consists of the application for insurance, the insurance policy, and the county actuarial table together with associated maps both of which are required to be on file in the county office. The application itself includes on its face a note or promise to pay the premium annually. If a farmer has insurance on two or three crops, such, for instance, as wheat, corn, and soybeans, he would receive a policy (known as the standard policy) plus a separate endorsement for each of the crops. Until recently the Corporation had separate policies for each type of crop or type of insurance and the use of one standard policy with endorsements is a recent development. Even the more specialized kinds of insurance are being rapidly brought under the standard policy.

Crops eligible for insurance in a county are determined by the Corporation and generally the farmer may select from that group the ones on which he wants insurance but there are a few exceptions where to have insurance on some crop he must carry the insurance on others also.

Continuous Contracts

A farmer has to apply for insurance on a crop only the first year of his insurance on that crop. He may have a standard policy covering one or more crops and may add another crop in a later year. Also

he may cancel the insurance on any or all crops as of the end of any year provided he does so by the cancellation date for the crop named in the policy. The cancellation date is generally several months in advance of the closing date. If, after cancelling insurance on a crop, the farmer changes his mind he generally has until 15 days after the cancellation date to reinstate the insurance but he does not have an opportunity to re-obtain insurance on that crop up to the closing date.

The Corporation must notify the insured at least 15 days before the cancellation date of any changes in the insurance contract or insurance terms for the following year. The Corporation as well as the farmer may cancel the insurance as of the end of any year on any or all crops if it does so by the cancellation date. In addition, if there is an overdue unpaid premium for a previous year the insurance will automatically terminate on a given date which for spring planted crops is usually the same as the closing date for taking new insurance.

There are some cancellations by farmers every year and some by the Corporation. Most cancellations by the Corporation result from three causes which are (1) the insured is an occasional rather than a regular producer of the crop, (2) poor insurance risk often evidenced by frequent losses, and (3) failure to pay the premium note which is technically an automatic termination of the contract rather than a cancellation.

The use of the continuous contract makes it unnecessary to sell all of the insurance every year. In recent years about three-fourths of the insurance each year remains in force. From the Corporation's point of view it is the most economical method and adds stability to the volume of business. For the farmer it removes the need to apply for insurance each year and assures that this matter will not be overlooked. It encourages the practice of carrying insurance every year which is the only way to be sure that you are protected when the loss does occur. These benefits are accomplished by the continuous contract, yet the farmer and the Corporation are committed for only one year at a time.

Acreage Reports

One of the key requirements of the insurance contract is that the insured file an acreage report promptly after completion of planting, showing the location, number of acres and his share in the crop. This

report is the basis for the premium charged and the amount of protection. Obtaining all of these reports, promptly and accurately, is a big feature of the crop insurance work. The available time for this work is short. Many crops have a growing season of 90 to 100 days. To have an unbiased report, the report should be made before the condition and prospects of the crop become known; otherwise, the prospect for the crop may influence the reporting. A recent change will permit obtaining this information by telephone. In such cases the agent will prepare the report form and send a copy of it to the farmer by mail with the farmer having 10 days to make corrections. The human tendency to delay in making this report and the tendency to err in its preparation create many problems.

Persons who fail to report their acreage and interest (or who underreport it) until the crop is damaged, cannot be given the opportunity to rectify the failure or error at that time. To permit this would allow persons to decide on the amount of the insurance after loss became apparent or probable. The contracts provide that if the report has not been made within a specified time, the acreage can be excluded from the insurance by the Corporation and this practice is followed if the crop is damaged. Also, if the acreage or share in the crop is underreported, and this fact is not disclosed or the error discovered before the crop is damaged, the insurance will not be increased. Then if there finally is a loss, the insured is paid an indemnity on a proportional basis, depending on the part that he reported.

Where an insured or applicant desires or is required to pay his premium before he has planted, he submits a report of the acreage he intends to plant to be used as a basis for his premium. He is given the opportunity for a short time after planting to revise these figures. This method of submitting acreage reports is also sometimes used under other circumstances where the prompt filing of the report is necessary before actual planting figures are available.

Replanting

Part or all of the acreage of the crop may have to be planted more than once, as sometime the first planting does not produce a "stand." The farmer is expected to replant his crop while it is practical to do so and if he does not, the acreage will not be insured.

Insurance Period

If there is an insurance contract, the insurance takes effect upon the planting of the crop and continues in effect until the crop is harvested, or removed from the field unless this is later than a specified date which is after the usual harvest time.

Assignment to Creditors

All Federal crop insurance contracts contain a provision whereby the insured may make an assignment to a creditor. In such circumstances if a loss occurs the indemnity for the loss is generally paid by joint check to the farmer and the creditor who has the assignment. This provision of the insurance contract has helped farmers to improve their credit. It is widely used in some areas while little used in others. In fact, in some areas it has probably been the motivation for many farmers taking crop insurance. Creditors who are given assignments may be landlords, bankers, machinery merchants, etc.

Fixed Price

Most of the types of insurance used by the Corporation provide that the insurance for each year shall be based on a predetermined fixed price that year for the commodity. Under the present contract where the amount of the coverage is in dollars, the fixed price is used as a basis for valuing production. Under earlier contracts where the amount of coverage was in physical units such as bushels, the fixed price was used to determine the amount payable in dollars for the loss computed in bushels.

In determining this fixed price, the objective is to get as close as possible to the market price for the season when the insured crop is sold. Yet this price has to be fixed considerably in advance of planting time. In many years the legislative basis for support prices on certain commodities has been known at the time and this has been a help in fixing a price for the year for insurance purposes. As of the present time, the fixed price method is used in all except tobacco insurance and tree crop insurance, which are described later.

There have been difficulties, particularly in recent years, in establishing a fixed price well in advance of the planting season. Part of this has resulted from changing support prices and in some cases there have been different support prices for farmers under different

circumstances. The difficulty incurred in establishing a fixed price well in advance of the planting season was the principal reason for the recent development of a new plan of insurance for the future described earlier as Method No. 3.

Quality Protection

The insured may suffer a loss in quality as well as a loss in quantity. A loss in quality will generally be reflected in the price at which the product can be sold on the market. There are a number of methods in the insurance for the different commodities by which this type of loss is reflected in computing the combined loss of quantity and quality. Essentially, these methods are to value the damaged production at a lower value than other production. In the case of corn insurance the fixed price is used to value any of the corn produced that meets or can be made to meet the quality requirements for a Commodity Credit loan but any lower quality corn is valued at the highest price obtainable. For example, if the fixed price of corn is $1.40 but a farmer's frozen corn is worth only 50 cents a bushel, then the corn would be valued at 50 cents instead of $1.40. It would take almost three bushels of this type of corn to equal one bushel of the corn that would be valued at $1.40. If the frozen corn is valued at 50 cents a bushel, the value of his total production would be much lower than if his corn were all good quality and, of course, his indemnity would be higher. In the case of some bean insurance the fixed price for valuing production is not one price but a schedule of fixed prices for the different grades. Thus, lower quality production is valued lower. There are variations of these methods for some of the other commodities and a major variation for tobacco. 1/

With the adoption of a different insurance plan for future years (Method No. 3) which does not normally involve pricing of the production a modification of the quality protection provision was required. Essentially the damaged production is converted to its equivalent in good quality by a price relationship. For example, if an insured produced 800 bushels of poor quality product worth 50 cents a bushel and the local market price for good quality of a specified grade was $1.00 per bushel, a production of only 400 bushels would be counted.

It should be noted that losses of quantity and quality are not settled separately but are woven together so that production of a high yield

1/ See later subsection on tobacco insurance.

will tend to offset loss from poor quality. Loss in quality may hurt the farmer as much as loss in quantity of production and its inclusion in the insurance protection is important. Quality protection was not given in the early years of Federal Crop Insurance. It has been added only as workable methods have been developed.

The Insurance Unit

The area of land taken into consideration in determining a loss is an important factor. Farmers frequently will have some areas of poor and some of good production. Considering only that part of the acreage with poor production, there may appear to be a loss while overall there may be little or no loss since the good production areas may nearly or completely offset the poor production in others. This balancing of good and poor production is more likely to occur on large acreages, and particularly widely separated tracts, where variations in soil, weather and timing of operations may cause differing crop results.

Since the area taken into consideration in determining a loss is so important with respect to the amount of loss (or even the existence of any loss) this area has to be defined in the insurance contract and is known as the "insurance unit." While there is some variation between commodities with respect to insurance units, the most common basis is as follows: (1) All the acreage in the county in which an insured has 100 percent interest in the insured crop is one insurance unit, (2) All acreage in the county owned by the insured and rented to one share tenant is an insurance unit, (3) All acreage in the county owned by one person and operated by the insured as a share tenant is an insurance unit.

Because the area of the insurance unit is so important it has been a subject of much controversy since the beginning of the insurance. In the early years of Federal Crop Insurance, the farm was generally the insurance unit. Acreage that constitutes a farm is often very difficult to determine. Farmers often have tracts of land that are separated and these may have been separate farms in the past but with modern movable machinery, these tracts may be operated as one unit. To attempt to break them down for insurance purposes, as was done in the early years of the insurance, tends to move in the direction of field insurance.

It may seem inconsistent with this combining of county-wide operations into one unit to make separate units on the basis of sharing the crop with different people. Probably the most important reason for this is to provide both the landlord and the tenant with the same basis for determining loss. An illustration may help to explain this: Suppose that A owns and operates a farm and also rents some additional land from B. B's only land is the land rented to A. If both A and B were insured and there was a loss on the rented tract, A and B under the present system would receive similar indemnities varying only with their percentage share in the crop. However, if all of the land farmed by A was one unit, it is conceivable that good production on his own land would offset the loss on the rented land so there would be no indemnity paid to him but there would be an indemnity paid to B. In that case, A probably would be a dissatisfied insured.

The present definitions of an insurance unit are certainly not entirely satisfactory. Most objection is to the combining in one unit of county-wide operations, especially by those who think they have separate and distinct farms and by those who have a number of scattered tracts. The objection to the insurance unit definition is the reason why some persons do not take insurance and why some drop the insurance. On the other hand, there are dangers in reducing the size of the insurance unit. Probably the final answer has not yet been found.

Co-Insurance

Sometimes the farmer feels that he can spend less for premium than the amount required, or is willing to spend less. It would appear that he should be able to buy less insurance. One way to do this, of course, would be to sell him a smaller coverage than is currently offered. For example, if the amount of insurance per acre offered is \$20, one way would be to sell him \$15 worth of insurance instead of \$20. The difficulty with this method is that the basis for insurance on a great many policies would be different, and it would be impossible to evaluate the experience for actuarial purposes. So a different method is used which is known as co-insurance. The basis for insurance would remain at \$20 per acre, but if the farmer wanted to pay a certain percentage of the premium; for example, 60 percent of the premium, he could do so and he would be paid 60 percent of any loss that would be incurred under the policy. There are several optional percentages from which the insured farmer may choose: 50, 60, 70, 80, and 90 percent. The provision is shown on the county actuarial

table. Adopted several years ago in a few counties, it has been expanded until for 1959 it was available in most counties for insurance on individual field crops. It will be available on all 1960 individual field crops except on three commodities where Method No. 3 is to be used and there it will be no longer needed because the farmer will have a number of options as to the amount of insurance he buys.

SELLING THE INSURANCE

Very little crop insurance is sold as a result of farmers coming into the office to ask for it. Most of it is sold by salesmen. There is an expression in the insurance world, "Insurance is sold -- not bought." Perhaps this is because insurance is protection for the future and for most of us the problems of the future are outweighed by the problems of the present. Furthermore, each farmer has alternative uses for his money and in deciding whether or not to take Federal crop insurance he weighs the use of his money for this purpose against the use of it for many other purposes. When some situation arises such as a prolonged drought and shortage of soil moisture, many farmers would of their own accord apply for insurance on their crop if it were available at the time. But under ordinary circumstances, most of the crop insurance has to be sold by actual solicitation of the business.

Selling crop insurance should occupy more of the time and attention of the people working on the program than any other aspect. There are always new farmers who are prospects for insurance as well as those who couldn't quite decide to buy in previous years. It is even necessary to keep the majority of insured farmers convinced of the merits of their insurance to hold the number who drop the insurance at a reasonable limit. Thus there is a never-ending task in the sale of insurance. Until 1954 the selling work was not performed by the Corporation itself but through contract with one of the other agencies of the Department which had an organization in every county centering around a county committee.

At present there is not a single pattern for local operation of the program but a variety of them with most emphasis being upon the use of the commission agent. Selling the insurance and keeping it in force after it is once sold is not easy. Every effort is being made to develop the most effective methods of performing this function.

There are some 400 counties with commission agents. The agency system with compensation on a commission basis is the typical method of selling most kinds of private or mutual insurance in the United States. Generally these agents sell insurance for a number of companies. The agent for Federal crop insurance, however, more typically handles only Federal crop insurance, although there are some that also act as agents for other insurance companies. Many agents are farmers or retired farmers. Some are engaged in other types of local business, including insurance. These agents are not employees but individuals working under a contract with the Corporation. Some employ assistants for office work and have sub-agents for selling. Some do it all themselves. They not only sell the insurance but service it. Their servicing work includes getting the acreage report each year, collecting the premium, receiving notices of loss, and other miscellaneous duties. The servicing part of the work is largely seasonal and for most of them selling has been seasonal but major emphasis is being placed on spreading sales work over a longer period with some selling effort throughout the year.

In some counties it has not been possible in the few years spent in installing an agent system to get or keep a satisfactory commission agent. In such counties service agents have been appointed. In these cases the service agent provides an office and performs the office work with the selling and other field work handled by part-time employees paid on a per diem basis. There are approximately 300 counties with service agents. Many of the service agents are women.

In one state the Corporation operates its own county offices with paid employees, some of whom are on a part-time basis. In these cases the office employees handle all work that can be done in the office with the selling and other field work performed by other part-time employees.

Part of the selling process is the dissemination of public information with regard to crop insurance through various media including the press, radio and television, talks at group meetings, and advertising by various methods including direct mail. Almost all of the advertising has been done by the agents although frequently advertising has been sponsored by local businessmen who believe that the purchase of crop insurance is good for their customers. But the dissemination of public information and the use of advertising is mainly a preliminary step. Crop insurance generally has to be sold to the individual by a salesman through direct contact. One exception is that of absentee landlords and in their case much of the selling must be done by mail.

Through use of a continuous contract the necessity of selling all farmers every year is eliminated. About 75 percent of the insurance is carried over each year with the other fourth cancelled by the farmer or the Corporation. Encouraging farmers to keep their crop insurance in force every year is of great importance since like other insurance it can only help those who have active policies when crop disaster strikes. The agent's commission on carryover business is, of course, smaller than on new business written.

Federal crop insurance is not available everywhere but of those farmers eligible about 20 percent carry it. This is an average figure with many variations between types of crops, areas, and counties. In some counties, 80 to 90 percent buy Federal crop insurance whereas in other counties less than 10 percent of the eligibles are insured.

ADJUSTMENT OF LOSSES

The adjustment of losses is extremely important. Properly carried out, it can contribute to a workable system of insurance. Improperly carried out, it alone can bring about failure for the system.

The adjuster's duties are many and his methods are varied. Early in the season he has to inspect damage and often to decide whether or not to give consent to put acreage with badly damaged crops to other use. He makes some inspections throughout the season. After harvest he has to adjust the losses. In doing so he must determine that the loss occurred from a cause insured against and not for some other reason such as poor farming practices. He has to determine the acreage, which often requires actual measurement. He has to inspect the acreage to see that it was harvested properly and to see if there is any evidence of lack of care. He may want to compare the results from the insured farm with those of adjacent farms and he may want to make other inquiries. He has to appraise any production left in the field or unharvested. He has to determine the production that was harvested.

In determining the production harvested the real problem is to find all of it since failure to account for all of it means overpaying the loss. The adjuster usually measures the harvested production stored on the farm and gets records of sales. But this alone is not enough. Some of the production may have been fed to livestock before he arrived. Sometimes part of it may have been sold to an undisclosed

buyer or delivered to a different place. Occasionally the farmer fails to report it all unintentionally. There are also occasions where the farmer does not report it all intentionally. It is the adjuster's job to be certain that nothing is overlooked and to satisfy himself that he has found the total production.

The adjuster's work requires skill and judgment. Adjusters are usually farmers or persons who have been farmers. This is the basic knowledge. When hired they are given training in the crop insurance program and methods of adjusting. Sometimes an adjuster serves only one county but it is also common practice to use them over a territory larger than one county. Their work is supervised and "spot-checked." They work under the supervision of the district supervisor or a "key adjuster." It takes experience for an employee to become a good adjuster. The Corporation has many adjusters who have performed this work for years. As ability is developed they are usually given greater responsibilities and often work over wider territory in their own state and sometimes temporarily in other states. Some are appointed as "key adjusters" to assist the district supervisor by handling especially difficult cases, making investigations, training and supervising adjusters, and "spot-checking" the work of other adjusters.

THE PREMIUM

In submitting an application for insurance, the farmer signs a note agreeing to pay the premium each year. After the acreage report is submitted, the premium for the contract is computed and the insured is billed for the amount. In certain instances, payment in advance on an estimated basis is required or perhaps a co-signer may be required on the note.

The premium rate is based on land characteristics and is applicable by areas, but a farmer's ability and farming habits also affect the chances for loss. The premium discount for good experience is on a personal basis and thus may reflect in part such factors as the farmer's ability and farming habits. There are two kinds of such discounts. One provides that if a farmer has had insurance for three consecutive years on a crop without a loss he receives a 5 percent discount, four years a 10 percent discount, five years a 15 percent discount, six years a 20 percent discount, and seven years or over a 25 percent discount. If a loss is paid, the policyholder with more

than three years will not lose all his good experience credit. Those with seven or more years will be reduced to four years, leaving them with a 10 percent discount; those with six years will be reduced to three, leaving a 5 percent discount; those with five years will be reduced to two, those with four years reduced to one, and those with three years or less reduced to zero. The other kind of discount for good experience, applicable only on certain crops, provides that when the premiums paid by a farmer on a crop insured continuously year after year exceed indemnities paid to him by an amount larger than the full coverage on the crop, he will have a reduction of 25 percent in the premium. (In the case of wheat, it is 50 percent.) This provision is an alternative to the one described above for years without a loss; both are not given together.

In wheat and cotton insurance a discount is given for large acreage in an insurance unit. This is to recognize in some measure the greater diversification of risk that tends to exist on large acreages due to greater variations in topography and soils and to different weather at different locations. Many of the larger acreages insured are often in separate tracts and this may increase the diversification of risk.

Numerous things are done to effect the collection of premiums. On most crops if the premium is paid with the acreage report and that is done not more than 30 days after planting of the crop is generally completed in the county, the premium is reduced 5 percent. Farmers are billed for the premium as promptly as possible. Any premium not paid by a specified date near the end of the season is increased by 10 percent. Some premiums are deducted from payments made to farmers for commodity loans or conservation payments. If a farmer doesn't pay for his insurance he is unable to get insurance in subsequent years. Interest is charged on unpaid balances. When other methods fail a farmer may be sued for the premium. The proportion of premiums that finally fail to be collected is small.

How much premium does a farmer pay? The average for the country in 1958 was $76. But there is a wide variation between farmers and even between areas. Generally in the eastern part of the country where the farms are smaller and risks are lower, the premiums are smaller than in the west. The average tobacco insurance premium for Tennessee was $15 in 1958, whereas the average wheat premium in Montana was $284. These figures are near the extremes rather than representative of the eastern and western parts of the country. There is a minimum premium charge on field crops which is $10 per crop.

DEVIATIONS FOR COMBINED CROP, TOBACCO, AND TREE CROP INSURANCE

Combined Crop Insurance

Started first in 1948 and known as "multiple crop insurance" until the present, this plan offers insurance protection on a group of crops rather than a single crop. In each county where this insurance is offered, certain specified crops are insured. An insured is covered on any of these that he plants in the county. His coverage for all these crops is combined and if the value of the production (based upon fixed prices) of all these crops combined is less than the combined coverage, an indemnity is due. This then combines the risk on a number of crops, such for example as wheat, corn, soybeans, and oats. Since these crops are in part subject to different risks, and good production of one will offset poor production of another, the loss on the combined crops usually is less than the sum of the losses on separate crops. For this reduction in insurance risk the farmer receives a reduction in his premium for diversification of risk. The object is to provide more complete insurance for the farm operations as a whole at low cost.

Almost from the start of this combined crop protection plan in 1948 there was demand for an option whereby losses would be settled separately on each crop. Beginning in 1954 farmers in some counties were given under the multiple crop insurance program an option at a higher premium cost to have separate loss settlements on each crop. Later, provision was also made for some counties that the farmer could select the crops on which he had separate protection. Thus there was a drift under the multiple crop insurance program to insure individual crops but all insured crops being under the same insurance contract. With the development of the present standard policy and endorsements for each crop, these changes in the multiple crop insurance contract were no longer needed since separate insurance protection of a number of crops under one contract was possible under the standard policy. So the movement was away from the multiple crop insurance program. Then it was decided that even the original type of multiple crop insurance -- the combined protection -- could be placed under the standard policy also. This will be accomplished by providing not only the endorsement for each crop but an extra endorsement that will tie all the crops together into one combined settlement in the event of loss. Under the standard policy the option

for combined settlement will not be available in all counties just as multiple crop insurance has not been available in all counties. For 1959 crops some insurance is still under a multiple crop insurance contract but counties with entirely spring planted crops used the standard policy with endorsements. However, beginning with 1960 there will be no insurance under the name "multiple crop insurance." Also by 1960 most of the minor miscellaneous crops previously insured under the multiple crop insurance program will have been dropped and combined insurance will be generally restricted to those crops for which individual crop insurance is available.

Tobacco Insurance

Quality is an extremely important factor in the production of tobacco. The loss from poor quality may be far more important than the loss in quantity, although both types of losses are often found together.

In the insurance of most other crops, production is valued at a fixed price except in the unusual case where some factor has materially damaged the quality. This method is not suited to tobacco because the crop off any acreage normally consists of tobacco of varying quality with a wide range in value. Most tobacco is sold in an auction market where bids are made on each basket. The price at which the tobacco is sold reflects in large measure its quality. Some baskets may sell at ten times as much per pound as others. Under these circumstances a single fixed price per pound would not be very satisfactory for insurance purposes. So in tobacco insurance the production is valued at the price it is sold (with minor exceptions). Thus if the general quality of a farmer's crop is unusually low -- perhaps an unusually large proportion of low grades -- this poor quality will be reflected in the price at which it is sold and consequently in the indemnity.

While the price at which tobacco is sold is related quite closely to the quality, it is also affected by the level of the general market price for tobacco of that type. To exclude payment of indemnity for decline in general market values -- not quality factors -- several methods are used. Under one method the coverage is established at the beginning of the growing season only in pounds and is converted to a monetary coverage after the marketing season is over on the basis of an average market price for that type of tobacco. This may be an approximate figure determined before the markets are closed. Thus, if a farmer's

coverage were 1,000 pounds, the coverage in dollars at an average market price of 40 cents would be $400. If he produced 1,000 pounds and sold it in the auction market for $300, his loss under insurance would be $100. This loss was due to the fact that his tobacco sold for 10 cents a pound under the market average for that type of tobacco and was probably due to poor quality although certain other factors may be involved. Had he produced less than 1,000 pounds and sold it at an average price of 30 cents, his indemnity would have been larger and due partly also to loss in quantity.

The plan described in the preceding paragraph was the first one used in tobacco insurance. Later to meet the desire for a coverage fixed in dollars at the beginning of the season a different plan was used in some counties. The coverage was set in dollars at the beginning of the season but was low so as to minimize any price risk. This was originally named "investment insurance."

Since tobacco losses cannot be determined until after the insured tobacco is sold and after the general average market price can be determined, it is obvious that adjustment of losses cannot be performed immediately after harvest as for other crops. In fact, the production process for tobacco does not end upon harvest. The green tobacco plants or leaves are hung in the barn and are cured by air or by the application of heat. Insurance on other crops terminates upon removal from the field, but insurance on tobacco continues while in the barn.

Tree Crop Insurance

Insurance on citrus crops was started in Florida in 1951 in one county and is still confined to four counties. Insurance on peaches was started in South Carolina in one county in 1957 and is still confined to that one county. Insurance on oranges was started in California in one county in 1958. Insurance of tree crops is still in the relatively early experimental stages.

Insurance of tree crops presents a number of different problems than insurance of field crops. The usual plan of "all risk" insurance used for field crops appears undesirable if not impossible for use on tree crops. There are several reasons. In the first place, the production of the tree varies with its age. The coverage in the case of field crops is generally established by areas on the basis of the productivity of the

soil. Such coverages would be unsuitable for tree crops because of the varying age of the trees and the resulting varying productivity. Another difficulty is the fact that the productivity of the trees varies not only with the care given to them during the current year but with the care given to them during preceding years and even as a result of damage from weather in preceding years.

Producers of tree crops are usually interested in insurance against a few specific major risks, principally freeze, hurricane, or windstorms, and sometimes hail. Damage from such specific risks can often be estimated by sampling processes after the damage occurs. This makes it possible to insure against one or two specific risks by the percentage of damage method rather than by the typical method for "all risk" insurance of subtracting the production obtained from a coverage or guaranteed production. The percentage of damage method has, therefore, been used in all experiments on tree crop insurance. Most of the insurance covers damage to existing fruit on the tree and presents quite a different problem than insuring a field crop, for example, against drought which might cause a loss by preventing the crop from growing. For tree crops damage preventing early growth (rather than damage to existing fruit on the tree) might arise in the case of early freeze, for example during the blossom stage. Only in the case of peaches has this type of protection against early loss been given.

Since tree crop insurance under these experiments covers only specific risks there may be years when none of these risks materialize into damage and it is to be expected that there will be years when no losses at all occur and probably other years with serious losses. While this is occasionally the case with field crops under the general "all risk" policy, it is the exception rather than the rule. Thus, in specific risk insurance on tree crops more than in "all risk" insurance for field crops, the insurance function is primarily the distributing of losses over a period of years. For example, in the citrus insurance in Florida there were only very minor losses during the first six years, but heavy losses in the seventh year required a little more than all of the premiums for the first seven years to pay those losses.

There is much yet to be learned about the insurance of tree crops and rapid expansion in this field is not expected until more experience is gained.

HISTORY OF FEDERAL CROP INSURANCE

The Federal Crop Insurance Act was enacted in 1938. This action followed a long period of frequent and severe droughts in the 1930's. There was no private insurance available on crops except against hail damage and in some areas fire damage. The original Act provided only for the insurance of wheat. Wheat insurance was started on the 1939 crop and was in operation for three years when cotton insurance was added. Losses in the early years were heavy with losses exceeding premiums on both wheat and cotton in each of the first five years, 1939-1943. Heavy wheat losses, for example, occurred due to droughts in the southern half of the plains states in 1939 and 1940 and to widespread winterkill in 1941. However, part of the excessive loss can definitely be attributed to the fact that there were defects in the insurance and it took some years before these could be corrected.

Some of the early features of the insurance which have been changed as a result of experience are given below. Some of the changes were primarily to improve the soundness of the insurance while others were primarily to simplify and improve operations. From the start of the program until 1948 the farmer had the option of insuring either 75 percent or 50 percent of the long-time average yield on his farm. Most of the insurance was written for 75 percent. Since 1948 the insurance has also been restricted generally to the investment per acre in the crop in the area and this has brought about more conservative amounts of insurance per acre. Furthermore, during the early years an insured was paid losses on the basis of this coverage of 75 percent or 50 percent of the average yield even though his crop failed early in the season. Today the amount of protection is progressive as the crop advances during the season. In the early years not only the coverages but the premium rates were established on individual farm rating. This proved cumbersome and unsatisfactory for various reasons. The area method described earlier replaced this method. Closing dates for applying for insurance were not generally as far in advance of the planting season as they have been in recent years. Insurance contracts during the earliest years were annual contracts necessitating writing all the insurance every year. There were no minimum participation requirements for a county in the earliest years and in many counties there were only a few contracts. Insurance was sold in a great many counties even though there was little wheat or cotton produced there. In recent years counties selected

for insurance purposes have been counties where the crop insured provides a substantial part of the farm income. During the early years of the insurance there was less centralized control of the adjustment of losses than there has been in recent years. Prior to 1945, loss adjustment was the responsibility of the local committee; since that time, loss adjusters directly responsible to the Corporation have performed this important function.

The original concept was one of insurance "in kind" to avoid price risks. A few premiums were paid in wheat, and during the first year, warehouse receipts for wheat were given for indemnities. As time progressed this grew into a system whereby the farmer paid his premium in cash at current values and the Corporation bought wheat or cotton with the funds. Indemnities paid farmers were in cash at the current value of the wheat or cotton due him and wheat or cotton in the reserves was sold to provide the funds. The buying and selling of wheat and cotton became essentially a hedging operation to protect the Corporation against price changes between the time of establishing the price basis for premiums and the time of establishing the price basis for indemnities. The period when this method was used was a war and early post war period with generally rising prices between premium and indemnity times. At the end of this section there is a table of experience which has a column showing a substantial net profit from purchase and sale of commodities. This should not be considered a source of income independent of the insurance operations but rather as an offset to the indemnities which are higher than they would have been had prices not been rising. Under the present method of using a fixed price each year for both premiums and indemnities, the hedging operations are no longer used.

As a result of the heavy losses in the first four years, the appropriation in the summer of 1943 provided sufficient funds only for liquidation. There was no insurance on 1944 crops nor on the 1945 winter wheat crop planted in the fall of 1944.

By action of new legislation near the end of 1944, the crop insurance program was revived and flax was added as an insurable crop. This legislation also provided for experimental insurance on other commodities in not more than 20 counties each. The legislation was passed in time to insure spring planted crops for 1945. These covered spring wheat, cotton and flax. In addition, small experiments were started on corn and tobacco. With the revival of insurance in 1945

a number of changes were made that helped to improve the insurance. These included the adoption of a coverage that was progressive during the season and adjustment of losses by employees of the Corporation.

As a result of the new legislation and other changes made in the insurance and its operation, the financial experience improved greatly on wheat and the experience on flax, tobacco and corn was quite satisfactory. However, large losses occurred on cotton insurance in 1945 and 1946, primarily as a result of droughts in the Southwest. By the end of 1946, over three-fourths of the original capital of $100,000,000 had been lost. However, a profit of about $8,500,000 was made in 1947 recovering part of these losses, but not before the Congress had reviewed the operations in the light of the 1945 and 1946 experience and had decided to reduce the program to more of an experimental basis. Insurance was authorized in only a limited number of counties. There were 200 wheat counties and 56 cotton counties and a smaller number of counties for the other crops. Provision was made that insurance should not exceed generally the investment in the crop in the area. While the number of counties was restricted, the Congress indicated that this experimental period should be used to develop insurance for other types of crops so that when the insurance was offered again in some of these counties, it could be offered not necessarily on wheat or cotton but on the crops that provided a major source of income for the farmers there. In 1948 small experiments were started on insurance for dry edible beans and on the multiple crop insurance.

This limited and experimental approach went into effect beginning with the 1948 crop with only 375 county programs compared to the 2,400 in 1947. Consequently, a new period in the history of the Corporation was begun at that time and present published reports do not carry the record back beyond 1948. Insurance operations since that time might be considered as more intensive rather than extensive operations. Congress on several occasions has reviewed the program and has authorized gradual expansion of the number of counties where insurance is offered. Other insurance added on an experimental basis has been Florida citrus - 1951, soybeans - 1955, barley - 1956, peaches - 1957, California oranges - 1958, oats and grain sorghum - 1959. Soybeans, barley, oats, and grain sorghum had been insured previously under the multiple crop insurance in some counties.

The financial experience since 1948 has been more satisfactory than in the earlier years (see Summary of Insurance Operations). During the first nine years, mostly under nationwide operations on wheat and cotton, there was a deficit of about $71 million. In the eleven years

SUMMARY OF INSURANCE OPERATIONS
FOR CROP YEARS 1939-1958

Crop Years 1939-1947 -- By kind of insurance

	Premiums	Indemnities	Profit or Loss From Sale of Commodities	Surplus or Deficit
Wheat	$ 78,616,023.96	$ 98,653,783.57	$12,645,371.22	$- 7,392,388.39
Cotton	46,683,164.26	111,575,215.64	-573,664.33	-65,465,715.71
Flax	6,162,184.01	4,725,305.60	110,500.00	1,547,378.41
Corn	1,193,646.47	1,896,626.08	-	- 702,979.61
Tobacco	2,178,019.02	1,563,416.45	-	614,602.57
Total 1939-47	$134,833,037.72	$218,414,347.34	$12,182,206.89	$-71,399,102.73

Crop Years 1948-1958* -- By kind of insurance

	Premiums	Indemnities	Profit or Loss From Sale of Commodities	Surplus or Deficit
Wheat	$118,967,318.09	$117,455,172.83	$ 206,043.75	$ 1,718,189.01
Cotton	18,230,440.37	18,449,608.39	-	- 219,168.02
Flax	7,930,575.18	6,146,321.44	-	1,784,253.74
Corn	15,601,498.63	18,445,728.69	-	- 2,844,230.06
Tobacco	18,540,264.00	12,421,196.41	-	6,119,067.59
Beans	1,526,701.14	1,784,359.78	-	- 257,658.64
Multiple	24,930,192.46	31,841,135.82	-	- 6,910,943.36
Citrus	750,076.37	737,201.11	-	12,875.26
Soybeans	624,941.81	341,728.45	-	283,213.36
Barley	610,003.72	232,402.22	-	377,601.50
Orange	114,944.00	50,000.00	-	64,944.00
Peach	85,854.67	57,183.29	-	28,671.38
Total 1948-58	$207,912,810.44	$207,962,038.43	$ 206,043.75	$ 156,815.76

Crop Years 1948-1958* -- Repeated by years

	Premiums	Indemnities	Profit or Loss From Sale of Commodities	Surplus or Deficit
1948	$ 12,683,974.06	$ 6,754,015.28	$ - 25,937.50	$ 5,904,021.28
1949	11,501,238.95	15,530,993.01	231,981.25	- 3,797,772.81
1950	14,103,899.13	12,798,839.13	-	1,305,060.00
1951	19,110,633.30	21,338,642.58	-	- 2,228,009.28
1952	21,200,814.94	20,609,018.57	-	591,796.37
1953	27,097,685.36	31,056,227.76	-	- 3,958,542.40
1954	22,654,797.28	28,030,712.90	-	- 5,375,915.62
1955	22,329,675.78	26,038,875.13	-	- 3,709,199.35
1956	22,139,250.16	28,806,758.55	-	- 6,667,508.39
1957	17,414,360.48	12,755,133.52	-	4,659,226.96
1958	17,676,481.00	4,242,822.00	-	13,433,659.00
Total 1948-58	$207,912,810.44	$207,962,038.43	$ 206,043.75	$ 156,815.76

*Includes estimated premiums and indemnities for the 1958 crop year.

since the Congress reduced the program to a more limited experimental basis, losses have been slightly less than the premiums. This is more in line with the intent of the Federal Crop Insurance Act which states "... the Corporation is authorized and empowered -- To fix adequate premiums for insurance in the agricultural commodity or in cash, at such rates as the Board deems sufficient to cover claims for crop losses on such insurance and to establish as expeditiously as possible a reasonable reserve against unforeseen losses:"

When the legislation was amended in 1947 the Corporation was authorized to reinsure private companies with respect to similar insurance. Since private insurance companies were not writing this kind of insurance, operation of this provision depended upon the entrance of private companies into this field. While there has been some consideration of this by a few companies and some discussions of reinsurance, there has been no operation under this provision.

Since 1956 a group of private insurance companies has offered insurance somewhat similar to Federal Crop Insurance experimentally in a limited number of counties. It was offered only as an addition to a hail insurance contract and was described as "Multiple Peril" insurance. Only a very small amount of insurance appears to have been written. Also a company in California has offered protection against a number of hazards to the grape and raisin crop.

Only a few other countries have systems of essentially "all risk" crop insurance. Japan has had a system since 1939. It is largely compulsory covering probably from five to six million farmers and is applicable to rice, small grains, and silkworm and cocoon. Mexico and Brazil established systems about 1954-55. Ceylon is currently starting an experimental program on rice. Several other countries are working on studies and have been developing plans. There is insurance covering several risks to crops in other countries but the ones listed above are the only ones known to the writer with insurance on crops covering essentially all risks.

CAUSES OF LOSS

Most Federal Crop Insurance covers essentially all natural hazards. The following table shows the causes of losses for which indemnities have been paid. Every time a loss is adjusted the adjuster estimates the percentage of the damage due to the two most important causes of loss involved, and the following table is a compilation of that information. The number of years covered, except for multiple insurance, varies by crops depending on the year the insurance was started. The longer the period, the less is the chance of the data being unduly influenced by severe losses of some types in one particular year. Variations in rainfall - drought or excessive moisture - are the causes of about half or more than half of the loss.

Causes of Loss 1/
(Percentages)

Crop	No. of Years	Drought	Excess Moisture	Flood	Hail	Frost, Freeze, Cold & Winter-kill	Wind	Insects	Disease	All Others
		%	%	%	%	%	%	%	%	%
Wheat	18	44.7	4.0	1.3	13.0	11.0	8.6	4.8	9.8	2.8
Cotton	14	31.5	24.8	2.7	5.4	1.9	4.4	26.6	.7	2.0
Flax	13	26.8	35.0	2.4	7.6	8.0	2.0	2.1	5.8	10.3
Tobacco	13	51.9	10.4	1.7	14.3	1.4	4.2	0	12.4	3.1
Corn	13	58.2	13.5	3.1	6.6	8.3	.9	3.7	.1	5.6
Beans	10	26.1	22.8	1.5	29.4	7.1	3.7	1.9	5.4	2.1
Soybeans	3	35.7	25.8	2.3	18.5	.2	0	.1	.3	17.1
Barley	2	31.9	18.2	.3	31.4	2.2	2.5	1.0	1.2	11.3
Oats		40.7	21.8	.5	15.0	0	1.6	.3	.1	20.0
Citrus	7	0	0	0	0	100.0	0	0	0	0
Peaches	1	0	0	0	69.2	19.6	11.2	0	0	0
All Crops 2/		41.6	11.7	1.8	10.5	8.1	6.4	10.2	6.6	3.1

1/ Based only on counties in which insurance has been in effect in 1948 or subsequent years. Does not include losses under the combined multiple crop insurance; losses under multiple crop insurance with separate crop settlements are included under the name of the commodity.

2/ Percentages for all crops are much influenced by the size of the program and the number of years. Due to both of these factors wheat has the largest influence.

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Before completing this description, a few general comments might be helpful to cover certain gaps in the preceding description and possibly to clear up some wrong impressions which the reader might have obtained.

While there were approximately 343,000 farmers carrying Federal Crop Insurance on the 1958 crop, there was not an equal number of independent separate risks. The same catastrophe that affects one farmer will often affect many. The drought that strikes the southwest plains area affects the wheat crop of many insured farmers. The heavy boll weevil infestation that affects one cotton farmer will affect many farmers. It is true there are circumstances on individual farms that may cause losses and there are local weather factors such as showers that affect small areas, but on the whole a large number of policyholders are usually affected by the unavoidable causes of loss insured against under the policy.

Because of the fact that crop insurance is subject to widespread crop catastrophes, it is the very nature of the insurance that in some years the losses will be much heavier than in others. In some years there will be a deficit; in others, a surplus. This is shown by the table of loss ratios that follows. The loss ratio is the ratio of indemnities to premiums and indicates what part of the premium was needed to pay indemnities. In years with loss ratios below 100 some surplus is built up. In years with loss ratios over 100 there is a deficit. This is well illustrated by the corn experience as shown in the table. In four of the eleven years the losses took only one-fourth or less of the premiums. But in 1951 and 1956 losses were very heavy. The variations in loss ratios between years is extreme in the case of citrus insurance as shown in the table.

LOSS RATIOS - 1948-1958

	CROP YEAR											1948-
PROGRAM	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1958
Wheat	.58	1.50	.52	1.06	.85	1.25	1.42	1.28	1.12	.63	.16	.91
Cotton	.43	1.97	2.81	.82	.44	1.05	.56	.87	.72	.61	.23	1.01
Flax	.51	.62	.42	.49	.79	.95	.77	.81	.58	2.59	.45	.78
Corn	.17	.16	1.26	2.38	.25	.17	.56	1.54	3.42	.50	.45	1.18
Tobacco	.43	.66	.61	.49	.79	1.90	.89	.43	.32	.40	.18	.67
Beans	.29	.64	1.84	3.14	.55	.62	1.62	.65	1.01	1.12	.34	1.17
Multiple	.06	.16	.94	1.65	2.33	.91	1.50	1.46	1.33	.88	.32	1.28
Citrus	-	-	-	0	.04	0	0	.04	.22	7.32	.07	.98
Soybeans	-	-	-	-	-	-	-	.79	.81	.70	.49	.55
Barley	-	-	-	-	-	-	-	-	.41	.37	.38	.38
Orange	-	-	-	-	-	-	-	-	-	-	.43	.43
Peach	-	-	-	-	-	-	-	-	-	.53	.77	.67
ALL PROGRAMS	.53	1.35	.91	1.12	.97	1.15	1.24	1.17	1.30	.73	.24	.98

Although the tendency to surpluses in some years and deficits in others is most pronounced on individual crops (programs), it should be noted that it also exists for all programs combined. This makes it very difficult to evaluate the success of crop insurance by the surplus or deficit from operations in any one year, or even in a short period of years. A deficit in a single year, instead of reflecting failure of the insurance from a financial viewpoint, may actually reflect the fact that it is functioning properly. The real test is the ability to build up reserves in years when crops are average or better.

One should not get the impression that the crop insurance program is uniform throughout the country -- an impression that could be gained from a brief description such as has been given here. The operations are marked by wide diversity, not only between different areas of the country but even between adjacent counties. There are counties where from 80 to 90 percent of the eligible farmers are insured. There are other counties where less than 10 percent of the farmers are insured. There are counties with less than 100 crops insured and counties with more than 2,000. There are farmers who pay a premium of only $10.00 and others who pay thousands of dollars. There are areas where the risks are exceedingly low and there are areas where the risks are exceedingly high. There are areas where heavy deficits have been incurred over the years and also areas where large surpluses have been built up. Thus one should not form the impression from the description that has been given that Federal Crop Insurance is the same in all places.

It should be kept in mind that the Federal Crop Insurance Program is one which is still experimental and developing. While there are more than one-third of a million farmers insured and the successful carrying out of this insurance is an important end in itself, the objective of developing a sound workable insurance for wider use in the future is of equally great importance. The various types of insurance differ with respect to the extent to which they are approaching this goal. Wheat insurance, for example, covers the majority of the heavy wheat producing counties. The premium volume for wheat represents more than half of the Corporation's premiums and, consequently, the total experience in the aggregate is greatly influenced by the wheat insurance experience. On the other hand, the peach insurance is still very much experimental and on a very small scale.

Also, one should not get the impression that progress toward these goals is accomplished steadily. There is progress, and then sometimes there are setbacks. A lot of insurance may be sold in a county in some years and then for some reason or other, the volume of business may decline. Progress, therefore, must be looked at from the longtime trend as there are temporary variations up and down.

CONCLUSION

The purpose of this writing has been to describe Federal Crop Insurance; to give the reader a clearer picture of what it is and how it operates. The problem of what to include and what to exclude has been difficult because there are many aspects of the insurance and many factors which are of varying importance in the different parts of the country and for the different crops insured. Intended as a description, it intentionally contains little analysis or evaluation.

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